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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,638

11/18/2003

Dan Forsberg

59864.00528

3251

32294 7590 01/05/2007
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EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT

PAPER NUMBER

2132

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/714,638

Applicant(s)

FORSBERG, DAN

Examiner

Abdulahakim Nobahar

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-32,35-41 and 44-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-32,35-41 and 44-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

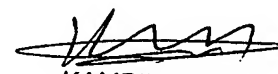
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


KAMBIZ ZAND
PRIMARY EXAMINER

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This office action is in response to applicants' response filed on 10/06/2006.
2. Claims 1, 2, 5-32, 35-41 and 44-48 are pending.
3. Claims 2, 3, 33, 34, 42 and 43 are cancelled.
4. Claims 1, 31 and 40 are amended.
5. Applicant's arguments have been fully considered but they are not persuasive.
6. With respect to applicant statement on page 14, 3rd paragraph of remarks, examiner on 12/20/06 made a telephone call and notified applicant's representative that examiner has no record or recollection of calling applicant's representative during April 2006.
7. When responding to the Office action, Applicant is advised to clearly point out the patentable novelty the claims present in view of the state of the art disclosed by the reference(s) cited or the objection made. A showing of how the amendments avoid such references or objections must also be present. See 37 C.F.R. 1.111(c).

Response to Arguments

1. Applicants on page 18, 4th paragraph of the remarks, argue that "Zhang fails to disclose or suggest establishing the secure tunnel begins before authenticating the user and wherein during a time between a beginning of establishing the secure tunnel with the one of the network entities and a beginning of authenticating the user equipment with another of the network entities, the at least one network communicates with the

user equipment to confirm that the request from the user equipment to establish a secure tunnel is not part of a denial of service attack.”

The examiner respectfully disagrees and asserts that Zhang discloses that while the process of authentication of a user equipment is performed the communications among the user equipment, the access point server and the authentication server are encrypted (see Fig. 2 and [0073]-[0082]). Zhang teaches that the user initiates a login session with his ISP (see [0075]). The access point server communicates an access request including the user ID to the authentication server (see [0076]). From this point onward until the user is authenticated all the transmitted messages (Fig.2, messages 220, 230... 270) from the authentication server to the access point server and from the access point server to the user equipment and vice versa are encrypted (see [0077]-[0082]). The communication of encrypted messages between two points corresponds to the recited establishing secure tunnel. Therefore, the authentication of the user equipment partly coincides (i.e., occurs partially simultaneously) with the establishment of a secure channel. Moreover, Zhang discloses that the preferred embodiment of his invention provides a mechanism to prevent a denial of service attack by a hacker during the authentication of a user after establishing a secure channel. This is done by APs making intelligent decision while relaying user authentication certificate (corresponding to the recited a request for an identification of the user equipment). Zhang also discloses that IPSEC is used for the communication between the user and AP to ensure data integrity (corresponding to the recited a request for capability of the user equipment to support at least one data protocol) (see, for example, [0065]-[0067]).

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2. The examiner, however, in light of the above submission maintains the previous rejections while considering the amendments to the claims 1, 31 and 40 as follows:

Claim Objections

Claims 5, 35 and 44 are objected to because of the following informalities:

These claims dependent upon cancelled claims. Appropriate correction is required.

However, examiner will consider these claims as allowable subject matter if rewritten in independent form to include all of the limitations of the claims 1, 31 and 40, respectively, and to overcome this objection and the rejection under 112, second paragraph as stated below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 35 and 44 recites the limitation "communication during the time..." in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6-32, 36-41 and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al (2002/0174335 A1; hereinafter Zhang) in view of Palekar et al (US 20030226017 A1; hereinafter Palekar).

Regarding claims 1, 2, 6-8, 31, 32, 36, 39-41 and 48, Zhang discloses a method for providing authentication, authorization and accounting (AAA) transactions in a wireless network (see, for example, abstract and [0028]). Zhang discloses that a mobile terminal (MT) receives services from an Internet service provider (ISP) having an authentication server through an access point (AP) (corresponding to the recited access network) with a server (see, for example, Fig. 1 and [0073]). Zhang also discloses that a secure channel (i.e., secure tunnel) is established between the MT and the AP (see, for example, [0025], [0026], [0043] and [0045]). Zhang further discloses that in one embodiment IPSEC is used for per-packet encryption between a MT and an AP (see, for example, [0029], [0067] and [0068]). In this embodiment every packet is encrypted and authenticated. As Fig. 2 and the procedure explained at [0073] through [0082] demonstrate that all transmitted messages are encrypted (corresponding to the recited establishing of the secure tunnel) while (corresponding to the recited at least partially simultaneous) authentication of a MT is being performed. This means that authentication process starts right after a secure channel is established. Zhang discloses that the preferred embodiment of his invention provides a mechanism to prevent a denial of service attack by a hacker during the authentication of a user after establishing a secure channel. This is done by APs making intelligent decision while

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relaying user authentication certificate (corresponding to the recited a request for an identification of the user equipment). Zhang also discloses that IPSEC is used for the communication between the user and AP to ensure data integrity (corresponding to the recited a request for capability of the user equipment to support at least one data protocol) (see, for example, [0065]-[0067]).

However, Zhang does not expressly disclose that establishing a secure tunnel is determined based on a protocol or an authentication method.

Palekar discloses an efficient method for establishing a secure communication between two endpoints such as a wireless client and a network entity which consist of two phases of establishing a secure tunnel and authenticating the wireless client (see, for example, [0008]-[0010]; [0042]; [0053]). Palekar further discloses that for the purpose of establishing the secure tunnel between the two endpoints either the authentication method is negotiated (see, for example, [0063]; [0069]) or the protocol used for communication (see, for example, [0070]; [0071]; [0109]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a scheme of selecting a protocol or a method of authentication prior to establishing a secure tunnel as taught in Palekar in the method of Zhang, because it would provide for protection of the communication from a rouge interceptor (Palekar, [0007]; [0008]; [0051]).

Regarding claims 9, 10 and 45, Zhang discloses that both the AP and the service provider (i.e., an ISP) each include a server in their networks (see, for example, [0055] and [0073]).

Regarding claims 11-20, 37 and 46, Zhang discloses that the messages transmitted between a mobile user and an AP network are encrypted (corresponding to the recited the secure tunnel is established) and the communication is performed between the mobile user equipment and a server that is included in the AP network (see, for example, [0045], [0073] and Fig. 2, NASP).

Regarding claims 21-23, 26, 27, 38 and 47, Zhang discloses that a mobile user connection with an AP network is a wireless connection (see, for example, [0055]).

Regarding claims 24 and 25, these claims are rejected as applied to the like elements of claims 4 and 5 as stated above.

Regarding claims 28-30, Zhang discloses that a roaming user accesses an ISP or a home network through a local network (i.e., an access or visited network) see, for example, [0047], [0051] and [0060]).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abdulhakim Nobahar
Examiner

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December 22, 2006


KAMBIZ ZAND
PRIMARY EXAMINER